

Work Plan for Fiscal Year 2005

I. Program Title. Comprehensive Assessment & Monitoring Program CVPIA Section 3406(b)(16)

II. Responsible Entities.

	Agency	Staff Name	Role
Lead	FWS	Andrew Hamilton	Program Manager
Co-Lead	USBR	Ken Lentz	Reclamation Coordinator

III. Program Objectives for FY 2005.

The Comprehensive Assessment and Monitoring Program (CAMP) is intended as the vehicle for comprehensively assessing the effects of all CVPIA fishery actions under Section 3406(b). The program has two objectives:

- A. Assess the overall effectiveness of actions implemented under Section 3406(b) of the CVPIA.
- B. Assess the effectiveness of individual CVPIA Section 3406(b) actions.

IV. Status of the Program.

The Comprehensive Assessment and Monitoring Program has funded or partially funded a variety of monitoring efforts in the past, including:

- 1. California Department of Fish and Game (CDFG) summer Delta tow-net survey, elements of the adult striped bass monitoring program, and juvenile migration monitoring on the Yuba, Merced, and Tuolumne rivers;
- 2. The Interagency Ecological Program (IEP) database;
- 3. CAMP internet homepage on the CDFG web server in Stockton;
- 4. CDFG Central Valley angler survey which estimated inland catch of Chinook salmon and steelhead. Along with spawning population surveys and ocean catch estimates, this survey is a necessary component of credible salmonid stock monitoring.

As a result of fiscal constraints, CAMP has not funded these surveys since 2003.

In 2002 and 2003, CAMP supported a fish population visual observation monitoring program on the American River to provide a baseline for future restoration projects.

Annual reports on adult anadromous salmonid production and juvenile salmon migration have been prepared after escapement data are approved by the CDFG. This approval usually occurs one or two years after data are collected.

Currently CAMP is undergoing reevaluation to determine and implement the best mix of CVPIA-related monitoring activities to meet the objects listed above.

V. FY 2004 Accomplishments

1. Closed out work on the Central Valley angler survey.
2. Prepared a report on Central Valley Chinook salmon adult production estimates and juvenile emigration estimates covering the years 2001 through 2003.
3. Completed a second year of American River Chinook salmon and steelhead visual observation monitoring, providing information for Folsom Dam operations and baseline data for future restoration projects.
4. Prepared a technical report on statistical methods for assessing attainment of 3406 (b)(1) Chinook salmon doubling goals.

VI. Tasks, Costs, Schedules and Deliverables

A. Narrative Explanation of Tasks.

1. Program Management: The Fish and Wildlife Service is responsible for arranging monitoring and assessment activities and will establish contracts, oversee these contracts, and determine program direction. The Bureau of Reclamation participates in program planning and oversight.
2. Assessment of 3406 (b) actions and Annual Report: In FY 2005, the Fish and Wildlife Service will continue evaluation of projects to accomplish Objectives A& B. Objective B will be primarily a data compilation and assessment effort using ongoing project-specific and general monitoring. An annual report will be prepared which includes adult salmonid production estimates and results of emigration monitoring.
3. Field evaluations and monitoring: Selected sites along the lower American River will be regularly sampled throughout the year to provide timely information on the effects of Folsom Dam operations, and to provide baseline and ongoing restoration monitoring. Additional restoration projects will be sampled where opportunity arises.

Additional Funding Needs

To fully meet the requirements of Section 3406 (b)(16) and comprehensively assess the biological results of section 3406 (b) actions, CAMP will need to complete a program reevaluation, reprioritize actions, and secure sufficient funding.

Future Years Commitments/Actions

To fulfill the basic requirement of assessing trends in adult fish production, escapement survey programs are key; a substantial proportion of hatchery production must be marked, and the inland catch should be monitored with a program such as the one funded by CAMP in past years. Current State of California budgeting has curtailed many 2004-2005 anadromous fish monitoring efforts, some of which have been picked up by various Federal and local agencies and utilities that perceive a continued need for the data.

The creel survey and a long-term hatchery marking program are necessary for any program involving the management of anadromous salmonids in the Central Valley. Given additional funding, it would be a high priority for CAMP.

Additional needs include pre-project and post-project monitoring of restoration actions; evaluation of fish screen effectiveness; on-site assessment of habitat manipulations, riparian land acquisitions, operations modifications, and other actions intended to increase production or reduce mortalities of juvenile fish. Such studies are necessary to determine the effectiveness of specific restoration efforts, and are essential for genuine adaptive management. They would be a high CAMP priority if additional funding were available.

CAMP requires working Chinook salmon life-history models for streams throughout the Central Valley to analyze the effects of various restoration measures on population size and health.

Basic elements of the life-history of Central Valley salmonids are sketchy at best. An example is the biology of the Chinook salmon's rearing and migration in the Sacramento River. If additional funding were available, the reaches between the upper river and the Delta would be sampled, and the emigration sampling program in the upper river at Ball's Ferry would be reinstated. Without such sampling, salmon biology in the Central Valley will continue to be poorly understood.

In summary, substantial additional funding would be necessary to fulfill the CAMP mandate. The current state of CAMP can only provide brief, periodic glimpses into fish populations within limited stretches of select rivers, and the relative progress of individual restoration projects can only be qualitatively assessed. Additional funding would be needed to adequately assess CVPIA fishery restoration actions.

B. Schedule and Deliverables.

#	Task	Dates		Deliverable
		Start	Complete	
1.1	Program Management (FWS)	10/01/04	09/30/05	Revised FY04 Annual Work Plan. Draft FY05 Annual Work Plan. All contracts/agreements in place for activities in the Annual Work Plan. All activities in FY04 Annual Work Plan completed.
1.2	Program Management (USBR)	10/01/04	09/30/05	All activities assigned to USBR staff in FY04 Annual Work Plan completed as scheduled. Perform as Program Manager when necessary
2	Reporting and Actions Assessment (FWS)	10/01/04	09/30/05	Prepare 2005 report
3	American River Monitoring	10/01/04	9/30/05	Complete surveys and report

C. Summary of Program Costs and Funding Sources.

#	Task	Total Cost	Funding Sources
			RF
1.1	Program Management (FWS)	\$39,623	\$39,623
1.2	Program Management (USBR)	\$5,000	\$5,000
2	Reporting and Actions Assessment (FWS)	\$158,493	\$158,493
3	American River Monitoring	\$96,884	\$96,884
	Total Program Budget	\$300,000	\$300,000

D. CVPIA Program Budget.

#	Task	FTE	Direct Salary and Benefits Costs	Contracts Costs	Miscellaneous Costs	Administrative Costs	Total Costs
1.1	Program Management (FWS)	0.25	\$32,214	\$0.00	\$0.00	\$7,409	\$39,623
1.2	Program Management (USBR)	0.00	\$5,000	\$0.00	\$0.00	\$0.00	\$5,000
2	Reporting and Assessment (FWS)	1.00	\$128,856	\$0.00	\$0.00	\$29,637	\$158,494
3	Field Monitoring	0.00	\$0.00	\$91,400	\$0.00	\$5,484	\$96,884
Total by Category		1.25	\$166,070	\$91,400	\$0.00	\$42,530	\$300,001

VII. Future Years Commitments/Actions

CAMP reports will continue to be prepared.